

**PETROLEUM STORAGE TANK RELEASE TRUST FUND  
CONTAMINATED SOIL EXCAVATION AND TREATMENT  
CRITERIA**

**REQUEST FOR PROPOSAL (RFP)**



**Kansas Department of Health and Environment**

**Bureau of Environmental Remediation**

**Storage Tank Section**

**CONTAMINATED SOIL EXCAVATION AND TREATMENT CRITERIA  
REQUEST FOR PROPOSAL (RFP)**

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**REQUEST FOR PROPOSAL  
CONTAMINATED SOIL EXCAVATION AND TREATMENT CRITERIA  
KDHE - BER - STORAGE TANK SECTION**

**SECTION 1.0**

**PROPOSAL PROCESS INFORMATION**

**1.1 PURPOSE**

The Owner/Operator (O/O), directed by the Kansas Department of Health and Environment (KDHE), is soliciting bids from Vendors to implement a pre-approved excavation, disposal and treatment plan for petroleum contaminated soils under the KDHE Petroleum Storage Tank Release Trust Fund Program. The plan is designed to remove petroleum contaminated soils associated with underground and/or aboveground storage tank systems and replace the excavated areas with approved fill material. Contaminated soils will be treated to acceptable regulatory levels at a landfarm, or disposed at an approved legal landfill.

**1.2 OBJECTIVE**

- 1.2.1 To provide information necessary for the preparation of competitive proposals by Vendors.
- 1.2.2 To provide for a fair and objective evaluation of proposals.
- 1.2.3 To result in a contract between the O/O and the Vendor to provide the services as described in Section 3.0 and 4.0 of this Request for Proposal (RFP).

**1.3 DEFINITIONS**

- 1.3.1 "Corrective Action" means all action necessary to contain, collect, control, identify, analyze, clean-up, treat, disperse, remove, or dispose of soils and ground water contaminated by a release of petroleum products from a storage tank.
- 1.3.2 "Equipment Operator" means any person who operates the excavation, disposal and/or treatment equipment.
- 1.3.3 "Hazardous substance" shall have the meaning ascribed to such term by Section 101 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 of the United States as in effect on January 1, 1992.
- 1.3.4 "Licensed Professional" is the designated site representative for the Vendor, or the designated supervisor of the Vendor's "Sampling Technician". Minimum qualifications for this position are 1) must have a valid and current professional license through the Kansas State Board of Technical Professions and 2) must be technically qualified to interpret geologic data. This position is responsible for the preparation and certification of all information in reports and on maps.

- 1.3.5 “Other Pollutant” means any substance determined by the Secretary of Health and Environment that poses a substantial present or potential hazard to human health or the environment when released. The term does not include radioactive materials regulated by K.S.A. 48-16-01 et seq.
- 1.3.6 “Petroleum” means petroleum, including crude oil or any fraction thereof, which is liquid at standard conditions of temperature and pressure, including, but not limited to, gasoline, gasohol, diesel fuel, fuel oils, and kerosene.
- 1.3.7 “Project Manager” means the KDHE staff geologist designated to be the lead technical interface with the vendor.
- 1.3.8 “Release” means any spilling, leaking, pumping, pouring, emitting, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance).
- 1.3.9 “Sampling Technician” - This person is a representative of the Vendor under contract. The minimum qualifications for this position are 1) has knowledge of EPA/KDHE sampling protocol and 2) has performed soil sampling (field screening and laboratory) of at least 20 soil samples each (20 field screenings and 20 laboratory samplings).
- 1.3.10 “Vendor” means any person (individual, partnership, association or corporation) who is seeking or is chosen to enter into a procurement contract with the O/O.

#### **1.4 INQUIRIES**

- 1.4.1 All inquiries concerning this RFP must be submitted in writing to:

Petroleum Storage Tank Release Trust Fund  
1000 SW Jackson, Suite 410  
Topeka, KS 66612-1367  
Attn: Investigation/LUST Unit      Fax: (785) 296-6190

- 1.4.2 Answers to all written questions will be distributed to all participating prospective vendors by mail.
- 1.4.3 In all cases, no verbal communication will override written communications and only written communications are binding.

#### **1.5 REVISIONS TO THE REQUEST FOR PROPOSAL**

In the event it becomes necessary to revise any part of this RFP, revisions will be provided in writing to all vendors who receive this RFP.

## 1.6 SUBCONTRACTORS

If the Vendor intends to subcontract any part of the work to be performed under this RFP, the Vendor must include, in its proposal, a complete list of subcontractors and a description of the work to be subcontracted. The Vendor is responsible for assuring the subcontractors possess all licenses as required by the State of Kansas for the services they will provide.

## 1.7 SUBMISSION OF PROPOSAL

Two (2) sealed copies of the proposals must be received by the Petroleum Storage Tank Release Trust Fund no later than 3:00 p.m. on the date specified on the Project Bid Proposal Cover Sheet and the Project Bid Proposal Sheet(s). Proposals should be addressed to:

Petroleum Storage Tank Release Trust Fund  
1000 SW Jackson, Suite 410  
Topeka, KS 66612-1367  
Attn: Contractual Services Unit

The proposal must include costs for all tasks necessary to complete the specified scope of work in accordance with all requirements outlined in the RFP.

- 1.7.1 The outside of the envelope should be marked **“SEALED BID”** in bold lettering. The bid number(s) of the enclosed bid(s) must be displayed on the outside of the envelope. All bids sent in the same envelope must have the same bid deadline. Failure to properly mark the outside of the envelope may result in the bid(s) being disqualified.
- 1.7.2 Late proposals will not be opened. A letter notifying the Vendor, and documentation that the proposal was received after the deadline, will be mailed to the Vendor. The proposal will be stored in KDHE files for a period of one year beyond the closing date for the bid.
- 1.7.3 KDHE and/or the O/O will not pay for any information herein requested, nor are they liable for any costs incurred by the Vendor to prepare or submit a proposal.
- 1.7.4 Proposals must be in duplicate and include the following completed documents:
  - 1) Bid Proposal Cover Sheet with Vendor Information.
  - 2) Exhibit 2 Project Bid Summary Sheet (multiple site bids only).
  - 3) Exhibit 2 Project Bid Proposal Sheet(s). The vendor's name must appear at the top of each sheet in the designated place.
  - 4) List of all proposed subcontractors, major equipment suppliers, and analytical laboratories.

Proposals must be neat and legible. Proposals that are not properly submitted and/or are not complete will be disqualified.

## **1.8 WITHDRAWAL OF BIDS**

A Vendor may withdraw a bid at any time prior to the scheduled closing time for receipt of proposals.

## **1.9 PROPOSAL OBLIGATIONS**

The contents of the proposal and any clarifications thereto submitted by the successful Vendor shall become part of the contractual obligation and will be incorporated by reference into the ensuing contract.

## **1.10 TERM OF PROPOSAL**

All proposals shall be firm for a period of ninety (90) days after the proposal due date to allow time for evaluation of all proposals and to make an award.

## **1.11 DISPOSITION OF PROPOSALS**

All proposals become the property of the State of Kansas upon receipt and will not be returned to the Vendor. The State of Kansas shall have the right to use all ideas or adaptations of ideas contained in any proposal received in response to this RFP. Selections or rejection of the proposal will not affect this right.

## **1.12 EVALUATION CRITERIA**

Due to the variable nature of sites being remediated, bids will be reviewed to ensure that line item costs are equitably distributed across all required tasks. Prices must accurately reflect the actual cost to complete each segment of the project because additional scopes of work may be required. To avoid the potential problem of Vendors unfairly “loading” costs into certain categories to avoid cost proration, KDHE Trust Fund bid proposals will be evaluated on a line item basis. KDHE will review individual line item rates with respect to bids from other Vendors for the same project, and from similar historical projects.

The following procedure must be used in preparing the bid package:

If a line item unit rate is bid as zero (0) or is left blank, and the activity associated with that line item is required to complete the scope of work, the bid will be accepted and the Vendor will conduct the work for the line item(s) at their own expense.

The unit rate and line item total cost will be entered as “Included” (INC) if the unit for that line item is included in the rate for another line item. The line item in which it is included must be specified.

The unit rate and line item total cost will be entered as “NC” if it is proposed to perform the activity at no cost. “NC” will be taken to mean that the no charge rate will apply not only to the original scope of work, but will also apply to any additional scope of work within the geographic area.

KDHE reserves the right to approve or deny proposed rates and/or quantities on a line item basis. If deemed to be in the best interest of the O/O and the State, KDHE may propose reduced but reasonable (as determined by KDHE using the criteria above) costs for specific line items, and approve the revised total project cost. If the vendor is not willing to perform the task(s) at the reasonable rate, they may withdraw their bid. KDHE will not allow costs to be moved between line items to meet the reasonable cost requirement after the bid closing date.

In addition to the above described line item cost evaluation, proposals will be evaluated on the Vendor's 1) total cost as submitted on the Excavation Bid Sheet, 2) experience, 3) expertise, and 4) past performance on KDHE Storage Tank Sites. The final determination of approved costs for the project will be in the best interest of the O/O and KDHE.

### **1.13 CONFLICTS OR AMBIGUITIES**

Vendors shall notify KDHE immediately if conflicts or ambiguities are found in the Request For Proposal. Failure to do so prior to the specified closing date may result in these items being resolved in a manner deemed to be in the State's best interest as judged by the KDHE Storage Tank Staff.

## **SECTION 2                      CONTRACT INFORMATION**

### **2.1 PURPOSE**

This section will outline the type of contract contemplated and will set forth clauses that need to be contained in any resultant contract.

### **2.2 CONTRACT DOCUMENT**

- 2.2.1 The Contract between the O/O and Vendor shall consist of, at a minimum, the following: 1) This RFP and any amendments thereto, 2) the Vendor's proposal submitted in response to the RFP, and 3) the Contractual Provisions form # O/O 101, 7/92 (see ATTACHMENT B).
- 2.2.2 For the purpose of contract uniformity, the O/O's standard form contract, with the Contractual Provisions (ATTACHMENT B) in this RFP, will be used.
- 2.2.3 In the event of any inconsistency or contradiction between this RFP and the Vendor's proposal and/or contract form, the provisions of this RFP are controlling.

### **2.3 RESPONSIBILITIES**

- 2.3.1 The O/O is responsible for assuring the excavation, disposal and treatment of contaminated soils, and backfilling with approved soils, is conducted in accordance with the KDHE specification described in SECTIONS 3.0, 4.0 and 5.0.

- 2.3.2 The O/O and the Vendor selected to perform this scope of work are responsible for maintaining the initial project costs approved by KDHE. Any change to the value of this contract will be in accordance with the Vendor's proposed unit pricing and must be approved in writing by KDHE prior to the Vendor's commencing work. KDHE reserves the right to deny any changes.
- 2.3.3 The O/O and the Vendor are responsible for securing and complying with any and all federal, State of Kansas and/or local permits and regulations regarding the Scope of Work defined in the RFP.

## **2.4 ERRORS IN PREPARATION**

The Vendor is responsible for any mathematical error or incorrect extension of any calculations in the Vendor's price quotes. In case of discrepancies, the Vendor unit cost will be multiplied by the units provided and the resultant price will be used in the evaluation.

## **2.5 CONTRACT AMENDMENTS**

Modification, amendment, or any extension to a contract resulting from this RFP must be in writing. The O/O must receive prior written approval from KDHE for the changes. KDHE reserves the right to deny any modifications, amendments or extensions.

## **2.6 COMPLIANCE WITH LAW**

The Vendor agrees to comply with all applicable federal, state and local laws, rules, regulations and ordinances; all provisions required thereby to be included herein are hereby incorporated by reference. The Vendor agrees to indemnify and hold the O/O and KDHE harmless from any loss, damage or liability resulting from the violation on the part of the Vendor of such laws, rules, regulations or ordinances.

## **2.7 SEVERABILITY**

The invalidity in whole or part of any provision of the contract shall not void or affect the validity of any other provision.

## **2.8 ASSIGNMENT, TRANSFER, CONVEYANCE, SUBCONTRACT, AND DISPOSAL**

The Vendor will not assign, transfer, convey, subcontract, or dispose of any contract resulting from this RFP, or its rights, title, interest or power to execute such assignment to any other person, company, corporation or entity without the written consent of the O/O and KDHE.



## 2.9 PERFORMANCE ASSURANCE

The successful Vendor must have a valid driver's license acceptable in Kansas and be able to perform the type of work specified in this RFP. The equipment operator (Vendor or subcontractor) will have 100 hours of backhoe or similar excavation equipment experience prior to entering into a contract with the O/O.

## 2.10 INSURANCE

The Vendor shall maintain, at its expense during the term of the contract, the following insurance covering the services to be performed under this contract:

2.10.1 Workmen's compensation - statutory

2.10.2 Employers liability insurance in the minimum amount of \$500,000.00 per occurrence with a \$1,000,000.00 aggregate (if the Vendor has employees).

2.10.3 Comprehensive general liability insurance of \$1,000,000.00 per occurrence with a \$1,000,000.00 aggregate.

2.10.4 Vehicle liability (property damage and bodily injury combined) of \$500,000.00 per occurrence.

2.10.5 Professional liability insurance of \$1,000,000 per occurrence with a \$1,000,000 aggregate.

2.10.6 The successful Vendor will provide the O/O, within twenty (20) working days of the contract signing, a certificate of insurance (Accord Form 25-S) naming the O/O as the certificate holder. The cancellation clause of the Accord Form will read as follows: **'Should any of the above described policies be canceled before the expiration date thereof, the issuing company will endeavor to mail 10 days written notice to the certificate holder named to the left, but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives.'**

A copy of this document must be provided to KDHE within the same 20 working day time period.

## 2.11 LIEN RELEASES

A release of liens must be provided to the O/O and included in the Final Report.

## 2.12 INDEMNIFICATION

Neither the O/O nor KDHE shall be liable for any damage or compensation payable at law in respect to or in consequence of any accident or injury to any worker or other person in the employment of the Vendor or any subcontractor, save and except an accident of injury resulting from a willful negligent act or default of the O/O or KDHE.

The Vendor shall indemnify and keep indemnified the O/O and KDHE against all such damages and compensation, save and except as aforesaid, and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

## **2.13 COMMUNICATIONS AND NOTICES**

Any written notice to the Vendor shall be deemed sufficient when deposited in the United States mail, postage prepaid, and addressed to the Vendor at its address listed on the signature page of the contract, or at such address as the Vendor may have requested in writing, or which is hand carried and presented to an authorized employee of the Vendor at its address as listed on the signature page of the contract.

## **2.14 TERMINATION**

### **2.14.1 Termination for cause.**

The O/O or the Vendor may terminate the contract resulting from this RFP at any time when either party fails to carry out its obligations under the provisions of this RFP or to make substantial progress under the terms specified in the RFP and the resulting proposal and contract.

### **2.14.2 The O/O shall provide the Vendor with written notice of conditions adversely affecting performance. If after such notice the Vendor fails to remedy the conditions contained in the notice within ten (10) working days, the O/O may issue the Vendor an order to stop work immediately and exercise their right to terminate the contract.**

### **2.14.3 The Vendor shall provide the O/O with written notice of conditions adversely affecting performance. If after such notice the O/O fails to remedy the conditions contained in the notice within ten (10) working days, the Vendor may exercise their right to terminate the contract.**

### **2.14.4 The O/O shall be obliged only for the services performed in accordance with the RFP specifications prior to the date of termination notice.**

## **2.15 WAIVER**

In the event of breach of contract or any provision thereof, the failure of the O/O to exercise any of its rights or remedies under this contract shall not be construed as a waiver of any such provision of the contract breached or as an acquiescence in the breach. The remedies herein reserved shall be cumulative and additional to any other remedies at law.

## **SECTION 3.0 STATEMENT OF WORK**

### **3.1 GENERAL INFORMATION**

#### **3.1.1 The following information is provided to assist the O/O in obtaining proposals for the scope of work necessary to accomplish the goals outlined herein. See also SECTION 6 of this document, Proposal and Work Specific Definitions, and review information required in SECTION 4 for the Excavation and Landfarm Reports.**

- 3.1.2 The Vendor may modify the scope of work; however, all modifications and justification for the modifications must be identified as such in the proposal. Modifications to the proposal must be approved in writing by KDHE prior to the initiation of work.
- 3.1.3 KDHE reserves the right to reject any modification to proposals.
- 3.1.4 The definition of the Excavation Bid Sheet and work specific terms can be found in SECTION 6 of this bid package.

## **3.2 SITE INFORMATION**

Review the Site Specific Information (SSI) sheet for the site(s) in EXHIBIT 1. Conduct the work described therein following the requirements outlined in this document.

## **3.3 FIELD WORK**

### **3.3.1 Excavation, Disposal, Treatment and Backfill Goals**

- 3.3.1.1 Complete the field work in accordance with all requirements outlined in this document.
- 3.3.1.2 Characterize the highest levels of in-place soil contamination prior to excavation activities (concerning soils that will be landfarmed).
- 3.3.1.3 Remove the specified horizontal and vertical extent of contaminated soil, as stated in the SSI.
- 3.3.1.4 Load, transport and off-load contaminated soils at a pre-approved location (soil treatment area or legal landfill).
- 3.3.1.5 In a landfarm situation, treat the contaminated soils by turning them until they meet acceptable regulatory levels. Also, conduct a field screening event and collect laboratory soil samples for confirmation.
- 3.3.1.6 Provide approved backfill material, compacted and tested to meet acceptable site specific standards.
- 3.3.1.7 The Vendor is responsible for meeting the Excavation, Disposal, Treatment and Backfill Goals outlined in this SECTION and SECTION 4.0 DELIVERABLES.

### **3.3.2 Characterization of Contaminated Soils to be Landfarmed**

- 3.3.2.1 If prior investigation work was conducted at the site, and soil samples were collected for the required analyses, this work may not be needed. This information, if available, would be provided in the SSI in Exhibit 1 of this bid package.
- 3.3.2.2 In the event soil contamination levels for the appropriate analytes have not been characterized, soil samples will need to be collected for laboratory analysis through soil borings or probes prior to excavation mobilization. Soil samples will not be collected from the saturated zone.
- 3.3.2.3 Two soil samples will be collected from each area suspected to have the highest petroleum contamination within the proposed excavation boundary(ies). In order to meet BWM landfarm authorization and Storage Tank criteria, soil samples should be analyzed

for Benzene, Toluene, Ethylbenzene, Xylenes, 1,2 DCA, MtBE, Naphthalene, EDB, TPH OA-1, TPH OA-2, and Total Lead.

3.3.2.4 The analyses will be provided to the KDHE Project Manager for review. As soon as the analyses are reviewed and KDHE determines the contaminated soils can be excavated, the Vendor will be contacted and field work can be scheduled.

### **3.3.3 Excavation of Contaminated Soils**

3.3.3.1 Prior to site mobilization, the Vendor must locate all utilities (above and below ground) in the proposed excavation area(s). Because the absolute boundary or the extent of the contamination is not defined, the Vendor must also determine the utility locations surrounding the proposed excavation area to avoid possible delays.

3.3.3.2 The Vendor must supply sufficient Health and Safety Supplies at the site during all excavation activities.

3.3.3.3 The Vendor will be responsible for securing the site from the public using appropriate materials (barrels, fencing, etc.) to avoid hazards associated with excavations.

3.3.3.4 The Vendor will excavate up to the approved quantity of soil as stated in the SSI. In the event additional contaminated soils are discovered during the excavation process, the KDHE Project Manager will be contacted to obtain further instruction.

3.3.3.5 The Vendor will segregate any non-impacted soils which may overlie the contaminated soil during the removal process to minimize the quantity of soil to be treated. These soils could be utilized as approved backfill (if compaction standards can be met) upon completion of contaminated soil removal.

3.3.3.6 If shallow groundwater is encountered during the excavation process, all excavation activities will be stopped, and the KDHE representative must be contacted immediately. If shallow groundwater is anticipated, respond as directed in the SSI.

3.3.3.7 Any rocks or debris detected in the contaminated soil must be segregated and left on-site. These items can damage turning equipment at a landfarm, or add unnecessary weight to quantities taken to a landfill. The Vendor should discuss the use of these rocks and debris as backfill with the KDHE Project Manager.

3.3.3.8 Upon completion of excavating authorized contaminated soil areas, lab soil samples should be collected to confirm the levels of contamination remaining on-site. Samples will be collected from the sidewalls (4) and bottom (2) of the excavated areas. If more than 6 soil samples are needed, contact the KDHE Project Manager for approval. Soil samples will be analyzed for Benzene, Toluene, Ethylbenzene, Xylenes, 1,2 DCA, MtBE, Naphthalene, EDB, TPH OA-1 and TPH OA-2

### **3.3.4 Disposal of Contaminated Soils**

3.3.4.1 Disposal of contaminated soils at a landfarm area

1) The Vendor will be responsible for locating a specific plot of land from a local landowner to be used for spreading and treating contaminated soils. This location

must be evaluated and approved by a District Office or other KDHE representative prior to use.

2) The location of the landfarm property must be a) 1/4 mile from any public or private water supply, including wells and surface waters; and b) at least 500 feet from any resident or business. Groundwater depth in the area of the landfarm must be 10 feet below ground surface or deeper. See SECTION 3.3.5 for landfarm preparation, soil spreading and sampling criteria.

3) The landfarm location is presumed to be within three miles of the project site for bidding purposes. The Vendor will provide a mileage rate to address the additional transportation cost if the landfarm area is located more than three miles from the excavation site.

4) The Vendor or their representative is responsible for completing the "Application to Landfarm Petroleum Contaminated Soils Without a Permit". This document with attachments, should be sent to Joe Cronin in the Bureau of Waste Management (BWM) for review and approval. The application, Landfarm Operating Plan and Landfarm Closure Plan are included for reference in ATTACHMENT E. A copy of the completed, site specific application with attachments should be sent to the KDHE Project Manager.

5) If a land lease is necessary, the initial lease will be for one year with the option to renew for additional time, if needed. The landfarm property owner may have the option to perform the turning of the contaminated soil. A lease agreement must be written and signed by both the Vendor and the landfarm property owner. Copies of the lease agreement will be submitted to KDHE prior to initiating the excavation work. The payment schedule for the lease agreement, as approved by KDHE, will be a one time lump sum payment. A condition of the lease agreement must be that the remediated soil will become the possession of the landfarm property owner when KDHE has determined that the soils have been remediated to acceptable regulatory levels.

6) The Vendor will load the contaminated soil at the excavation site, transport and off-load the contaminated soils to the pre-determined landfarm location for disposal.

#### 3.3.4.2 Disposal of contaminated soils on the Trust Fund site property

1) Where applicable, contaminated soils may be spread on-site, provided the landfarm location criteria (Section 3.3.4.1 item 2) and berming/spreading criteria (Section 3.3.5) are met.

2) Contaminated soils will not be stockpiled on-site or on the landfarm property.

#### 3.3.4.3 Disposal of contaminated soils at a pre-approved legal landfill

1) Contaminated soils may be taken to an area landfill for disposal provided efforts to locate a land treatment area or other form of treatment location were unsuccessful. Landfill disposal must be pre-approved in writing by KDHE.

2) Specific criteria set forth by BWM concerning landfill disposal (i.e. soil sampling and waste manifest preparation) must be followed. Contact Richard Bronaugh in the BWM for more information.

### **3.3.5 Landfarm Treatment of Contaminated Soils**

- 3.3.5.1 Treatment of contaminated soils is applicable when soils are to be landfarmed.
- 3.3.5.2 Berming of the landfarm area is required to prevent run-on and run-off. The Vendor will construct the berm a minimum of 18 inches above normal ground surface, using native soils from the landfarm property.
- 3.3.5.3 Upon delivery and off-loading of contaminated soils at the landfarm site, the Vendor will thin-spread the soils 6 inches in height (unless otherwise stated in the SSI) within the bermed area. If soils are contaminated with diesel or other heavier-end hydrocarbons, nutrients or other materials (hay, manure) will be applied during the initial spreading. Specific instructions regarding nutrient application will be provided by the KDHE Project Manager upon review of the contaminated soil characterization analyses and/or instructions will be included in the SSI.
- 3.3.5.4 In approximately 25-30 days after the soils have been initially thin-spread at the landfarm site, the first turning event should be conducted. The Vendor will conduct three turning events; one turning every 25-30 days.
- 3.3.5.5 The Vendor's Sampling Technician will inspect the treated soil approximately 20 days after the last of three turning events. The soils will be inspected to determine existing soil contamination levels through field screening. Soil samples will be collected at a depth of 4 to 5 inches below the soil surface. Based on areal square footage of the landfarm, soil samples will be collected and field screened from each 100 foot by 100 foot square area. Samples should also include areas where soils are discolored, previously known to have odors, or in some cases, little-to-no vegetative growth. A record and map of the sample locations will be provided in the Landfarm Report (as described in SECTION 4).
- 3.3.5.6 The Vendor will contact the KDHE Project Manager to report field screening levels and determine if laboratory confirmation samples should be collected. If soil field screening levels are above acceptable regulatory levels, the KDHE Project Manager will authorize additional turnings, and subsequent inspections.
- 3.3.5.7 Upon KDHE approval, the Sampling Technician will collect grab soil samples from the areas of highest contamination determined through field screening. The grab samples should be submitted to a KDHE certified laboratory for confirmation analysis. The number of confirmation samples will depend on the number of samples that exhibited contamination during inspection. No more than six lab soil samples should be analyzed. If field screening results were negligible and contamination was not detected, collect two lab soil samples from areas that historically exhibited contamination. The confirmation samples will be analyzed for Benzene, Toluene, Ethylbenzene, Xylenes, 1,2 DCA, MtBE, Naphthalene, EDB, TPH OA-1 and TPH OA-2.
- 3.3.5.8 Upon completion of the turning events and confirmation that the soils are remediated below acceptable regulatory levels, KDHE will inform the Vendor and the landfarm property owner of these conditions. Upon conveyance of this information, the berm should be demolished and normal land use may resume.

### **3.3.6 Alternative Treatment Methods**

- 3.3.6.1 Vendors who wish to use treatment methods other than landfarming must submit a description of the treatment process and any supporting technical information to the KDHE Project Manager at least 10 working days before submitting costs for that method on the Excavation Bid Sheets. Alternative processes will be reviewed by KDHE to insure applicability and effectiveness. Upon completion of the technical review, the Vendor will receive written notification of the process approval or rejection. Bids that include processes which have not been approved in writing will not be considered.
- 3.3.6.2 Soils treated by alternative methods will be disposed of in an appropriate manner and will be described in the Field Work Plan. Soil disposal costs will be included in the unit costs for treatment.

### **3.3.7 Backfill**

- 3.3.7.1 Following the excavation of contaminated soils, the Vendor will arrange for clean backfill material to be placed in the excavated area(s). The bid sheet(s) will specify the type and quantity of clean fill material for bidding purposes.
- 3.3.7.2 The excavated, yet non-impacted soils, could be utilized as approved backfill if compaction standards can be met. Any backfill material will be tested (standard proctor test) prior to placement to determine compaction capability.
- 3.3.7.3 The volume of contaminated soils removed during excavation activities will be the same volume of clean fill material replaced and compacted. If the O/O is removing UST's as part of the excavation activities, the O/O is responsible for replacing and compacting any and all tank volumes with clean fill material, unless otherwise specified by the KDHE Project Manager.
- 3.3.7.4 The Vendor will arrange for compaction of clean fill material which meets acceptable industry standards. A compaction density of 95% or 98% will be achieved during the compaction process. A compaction density of 95% will be achieved in the event the use of the resulting surface area will be a parking lot or unimproved surface. A compaction density of 98% will be achieved in the event a building or other structure will be placed over the backfilled area. A geotechnical firm representative, or other person trained in density testing equipment, will conduct on-site density testing on every 6" compacted lift during backfilling activities. Density testing usually occurs in the top 5 (five) feet of backfill in the excavated areas, with a self-compacting material below this depth. A standard proctor should be conducted on the (proposed) clean backfill material prior to use. The Vendor will be responsible for any future repair needed due to incomplete or improper compaction.
- 3.3.7.5 The Vendor will arrange for replacing the surface over the excavated areas to meet pre-excavation site conditions (concrete, asphalt, rock, etc.). The type and amount of replacement material will depend on current land use and will be addressed in the Site Specific Information Sheet and bid sheets.
- 3.3.7.6 Adaptations and special circumstances to this sub-section will be addressed in the Site Specific Information Sheet.

### **3.3.8 Wastewater Disposal**

In the event water fills or partially fills the excavated area(s), the KDHE Project Manager will be contacted immediately. Water will need to be removed prior to resuming excavation activities as directed by the KDHE Project Manager. Disposal of wastewater must be conducted in accordance with state, federal and local laws. If the excavated area becomes filled with water due to contractor negligence, KDHE may not reimburse for the removal or disposal of the wastewater.

### **3.3.9 Property Damage**

3.3.9.1 Any property damaged or destroyed during excavation activities must be restored to its condition prior to damage or destruction within 30 calendar days. All costs associated with the restoration are the responsibility of the Vendor.

3.3.9.2 If any professionally landscaped areas are disturbed during the excavation activities, the Vendor must contract with a Landscape Professional to conduct the necessary repairs. Documentation of the contract will be required.

## **SECTION 4.0**

## **DELIVERABLES**

### **4.1 DEADLINES AND NOTICE TO PROCEED**

4.1.1 The Vendor will complete and submit two copies of the Field Work Plan Worksheet (see ATTACHMENT A) with the required maps and photos to KDHE after the contract between the O/O and the Vendor has been signed by all parties. Incomplete Field Work Plans will be returned without review. Work Plans will be completed by the staff that will be on-site during the soil characterization and excavation field work.

4.1.2 KDHE will review the Field Work Plan Worksheet within 10 working days of receipt. KDHE will provide written comment, or if approved, written authorization for the Vendor to proceed.

4.1.3 The Vendor will submit two copies of the Excavation Report for each site within 160 days after the contract between the O/O and the Vendor has been signed by all parties. Incomplete Excavation Reports will be returned without review. The submittal deadline will not be considered 'met' until a complete report demonstrating that the excavation goals have been met is received by KDHE. Report contents are stated in SECTION 4.5 and 4.6 of this RFP.

4.1.4 The Vendor will submit a Landfarm Report to the KDHE Project Manager within 45 days of lab soil sample collection. Report contents are stated in SECTION 4.7 of this RFP.

### **4.2 WORK NOTIFICATION REQUIREMENTS**

4.2.1 The Vendor will notify the O/O and the KDHE Project Manager by telephone or in writing at least three working days in advance of soil characterization (drilling or probing) activities. The



advance notification will include the date and time the field activity is scheduled to begin. Schedule changes must be reported as they occur.

- 4.2.2 The Vendor will notify the O/O, the landfarm property owner, and the KDHE Project Manager by telephone or in writing at least three working days in advance of excavation activities. The advance notification will include the date and time the field activity is scheduled to begin. Schedule changes must be reported as they occur.
- 4.2.3 The Vendor will notify the O/O, the landfarm property owner, and the KDHE Project Manager, by telephone or in writing, when all excavation, disposal and/or land application activities have been completed and will include the date field work was completed at the site. This notification must be within five (5) working days after the work is completed.
- 4.2.4 If soil is being treated through landfarming, the Vendor will notify the O/O, the landfarm property owner and the KDHE Project Manager/District Office representative, by telephone or in writing, three (3) days prior to each turning event. Notification should also be given prior to field screening and soil sample collection events. If necessary, additional turning events, an additional field screening event, and lab sample costs may be approved. If the Vendor is instructed to repeat the turning events, the Vendor will notify the O/O, the landfarm property owner and the KDHE Project Manager in the same manner listed above.

#### **4.3 PRE-CONTRACT SUBMITTALS**

The Vendor is required to submit as a part of the bid proposal each item requested in the order below. Certain items (\*) will remain on file with KDHE and, once submitted, re-submittal will be necessary only when changes are made. The Vendor must specifically state why an item(s) is omitted from the proposal package.

- 4.3.1 A cover letter from the Vendor, identifying which project they are bidding on.
- 4.3.2 Completed Excavation Bid Sheet
- 4.3.3 Copy of Insurance Certificate\*
- 4.3.4 Resumes of personnel proposed for the project\*
- 4.3.5 Complete list of equipment and equipment capabilities\*
- 4.3.6 Health and Safety Plan
- 4.3.7 Workers Compensation Log & Summary of Occupational Injuries & Illness (OSHA form G200)\* (if applicable)
- 4.3.8 Vendor's resume\*
- 4.3.9 List of all sub-contractors with a description of their duties and, if applicable, copies of their OSHA safety training certificates.

#### **4.4 FIELD WORK PLAN SUBMITTALS**

The Vendor will complete and submit two copies of the Field Work Plan Worksheet (see ATTACHMENT A) with the required maps and photos to KDHE after the contract between the O/O and the Vendor has been signed by all parties. Incomplete Field Work Plans will be returned without review. Work Plans will include four (4) photographs taken of the facility, storage tank system, and area(s) to be excavated. Photos will be color prints or color copies, and be taken by an employee of the Vendor. Work Plans will be completed by staff that will be on-site during the soil characterization and

excavation activities. If soils will be landfarmed and a land lease agreement is necessary, a copy of the landfarm lease agreement will accompany the Field Work Plan Worksheet.

#### **4.5 EXCAVATION REPORT**

- 4.5.1 An Excavation Report will be completed for each site. Each Excavation Report will be a summary of all work performed, and all data requested and gathered during all activities conducted under the excavation phase of this contract.
- 4.5.2 Each Excavation Report will include a cover page with the following information: report title, site name, site address, KDHE Project Code, section, township and range to four quarters, report date, and the name of the person who prepared the report. Cover page must be stamped and signed by a Licensed Professional.
- 4.5.3 Each Excavation Report will include a brief table of contents, dictated by SECTION 4.6.
- 4.5.4 Two copies of each Excavation Report will be submitted to the KDHE Project Manager and one copy will be submitted to the respective O/O. Incomplete reports will be returned without review (see SECTION 4.1.4).

#### **4.6 EXCAVATION REPORT FORMAT**

Each Excavation Report will include all information outlined below in the format described.

##### **SECTION 1.0 TABLES**

All tables will include a row or column for each numbered item requested. If an item is not applicable, please indicate "NA" in the appropriate place.

##### **Table 1.1 - Summary of Work Completed**

Include the following information for work completed at the storage tank site:

- 1) number of tanks removed and their size (if applicable),
- 2) total number of cubic yards of contaminated soil excavated,
- 3) number of cubic yards of contaminated soils taken to the landfarm for treatment and disposal,
- 4) number of cubic yards or tons (state which quantity was reported on the weight tickets) of contaminated soils taken to a landfill for disposal,
- 5) number of cubic yards of clean soils removed from the excavated areas; also state where the soils were placed,
- 6) number of cubic yards of clean backfill material hauled to the site; designate the type of material (sediment and/or aggregate types) and quantity of each, and
- 7) dimensions of each excavated area, including depth.

##### **Table 1.2 - Soil Characterization**

Include lab sample analyses collected prior to the excavation to potentially characterize the highest levels of soil contamination at the site.

- 1) boring or probe number,
- 2) depth at which each sample was collected,
- 3) field screening results in parts per million (ppm),

- 4) concentration of each specified constituent in ppm determined through laboratory analysis; state the petroleum types identified,
- 5) date each sample collected,
- 6) EPA test method and lab detection limit for each analyte in each sample, and
- 7) field instrument used.

**Table 1.3 - Soil Field Screening Results**

Include soil field screening results obtained during the excavation process.

- 1) specific location of each field screened sample (i.e. north sidewall of former basin, beneath west pump island, etc.),
- 2) sample depth,
- 3) sample number,
- 4) field screening results in ppm,
- 5) date sample was field screened, and
- 6) field screening instrument.

**Table 1.4 - Volatilization Enhancers**

Include information on nutrients or materials added to contaminated soil during the initial spreading to enhance remediation.

- 1) type of nutrient or material added to contaminated soil,
- 2) quantity of nutrient or material added and the application rate (if applicable)
- 3) state how the nutrients or materials were applied and/or mixed with the contaminated soil,
- 4) date applied or mixed.

**SECTION 2.0        MAPS**

**Figure 2.1 General Site Location** - A copy of the topographic map adapted from a USGS 7.5 minute quadrangle map, depicting the Trust Fund site location and a one mile radius around the site. Highlight or mark the location of the site. Contours and other information on the map must be clear and legible. If the landfarm location is visible on this map, highlight or mark and label the landfarm property also.

**Figure 2.2 Landfarm Location** - A copy of the topographic map adapted from a USGS 7.5 minute quadrangle map, depicting the location of the landfarm area. Highlight or mark the location of this area. If the landfarm area is visible and can be highlighted on Figure 1 General Site Location Map, this second map is not necessary.

**Figure 2.3 Area Base Map** A map of the area depicting the site prior to excavation. Include and label the location of all roads, buildings, present and former tank locations, pumps islands, product lines and monitoring wells. Depict the locations of all underground utilities and overhead lines on-site and within 25 feet of the Trust Fund site property boundary. State the type and depth of each utility service. The scale of the map shall be 1" = 50 feet for smaller sites and no greater than 1" = 100' for larger sites.

**Figure 2.4 Excavation Map** A detailed map, adapted from Figure 3, of all excavation boundaries determined upon completion of the excavation activities. Indicate any change in property structures or damage to monitoring wells.

## **SECTION 3.0            PHOTOGRAPHS**

All photographs shall be color print or color copies. Photographs will be taken from an appropriate distance and angle for the subject to be clearly visible and identifiable. Each photograph shall illustrate the spatial relationships of the various structures at the site (buildings, roads, tank basin locations, etc.). Each photograph shall include a description of the scene, the direction the picture was taken (i.e. looking east), and the date and time of the photo. Include at a minimum the following photographs (minimum 10 photos), two photos per page:

- Two photos of the entire facility taken from two distinctly different directions, including buildings, overhead lines, tank systems and any remedial systems.
- Two photos of the tank basin and other areas to be excavated, prior to excavation.
- Two photos of the tank basin and other areas being excavated, during the excavation process, specifically illustrating the contaminated soil and any non-impacted surrounding soils.
- Two photos of the tank basin and other excavated areas after all excavated areas have been backfilled and the site restored.
- If landfarming, two photos of the landfarm area, both taken after contaminated soils were off-loaded and thin-spread on the property. One of these pictures should show the berm.

## **SECTION 4.0            OTHER REQUIRED DOCUMENTATION**

Appendix 1 - A copy of the landfarm lease agreement (if applicable), and a copy of the “Application to Landfarm Petroleum Contaminated Soils Without a Permit” if soils are landfarmed.

Appendix 2 - A copy of the compaction and density testing reports from the geotechnical firm.

Appendix 3 - A copy of all laboratory results and related chain-of-custody forms.

Appendix 4 - A copy of field notes, daily time sheets and any lien releases.

Appendix 5 - A copy of all truck tickets indicating types of material moved and load sizes.

Appendix 6 - A copy of all transport papers, i.e. the waste manifest from the legal landfill where contaminated soils were disposed (if applicable).

### **4.7    LANDFARM REPORT FORMAT**

This report will be submitted after landfarming goals are met. Each Landfarm Report (LFR) will include all information outlined below in the format described.

#### **LFR Section 1.0        TABLES**

All tables will include a row or column for each numbered item requested.

##### **Table 1.1 - Landfarm Turning Dates**

Include the following information:

- 1) landfarm soil turning dates
- 2) indicate the equipment used to turn the soils (tractor, etc.)

**Table 1.2 - Volatilization Enhancers**

If augmentation was required during a turning event, include the information below for this table. If nutrients or materials were not added, this table is not necessary.

- 1) type of nutrient or material added to contaminated soil,
- 2) quantity of nutrient or material added and the application rate (if applicable)
- 3) state how the nutrients or materials were applied and/or mixed with the contaminated soil,
- 4) turning event (1, 2, etc.) and date applied or mixed.

**Table 1.3 - Soil Field Screening**

Include the following results for each field sample collected:

- 1) field screened sample identification number,
- 2) date(s) the soils were inspected and field screened, and
- 3) field screening results in parts per million (ppm) of each sample.

**Table 1.4 - Soil Laboratory Results**

Include the following results for each grab laboratory sample collected:

- 1) lab sample identification number,
- 2) the date the soils were collected,
- 3) the number of grab samples collected, and
- 4) concentration of each specified constituent in ppm determined through laboratory analysis; state the petroleum types identified, and
- 5) the EPA test method and lab detection limit for each analyte in each sample.

**LFR Section 2.0      MAPS**

**Figure 2.1 Landfarm Base Map** A landfarm area map is required and should indicate where soil samples were collected for field screening and laboratory analysis. Each sample location should be labeled with the same identification number as stated in Tables 3 and 4. The scale of the map should be 1" = 50' for smaller landfarms, and up to 1" = 100' for larger landfarms. The KDHE Project Manager should be contacted if the scale needs to be adapted. This map should be computer generated, but not adapted from a topo map.

**SECTION 5.0****REIMBURSEMENT****5.1 REIMBURSEMENT GUIDELINES**

- 5.1.1 All Vendors invoices must be submitted to the O/O for payment.
- 5.1.2 Total reimbursement will not exceed the lesser of the actual costs incurred for each line item or the total cost for each line item in the Excavation Bid Sheet unit pricing.
- 5.1.3 The Vendor will only receive payment for work conducted and accepted in accordance with the specifications outlined in this document.

- 5.1.4 Payment to the Vendor will be prorated in accordance with actual work performed (i.e. if only 50% of a line item is completed, then 50% of the approved line item will be reimbursed). The following categories will be prorated: cubic yards; tons; square footage; turnings; gallons; excavation oversight hours; and sampling.
- 5.1.5 The Vendor may submit invoices for reimbursement at the following stages of field activities. The activity must be completed prior to invoicing.

<b>Activity</b>	<b>Invoice Amount</b>	<b>Pay Amount</b>
Soil Excavation	100%	90% of the approved invoice amount.
Loading, Transportation, and Off-loading	100%	90% of the approved invoice amount.
Spreading	100%	90% of the approved invoice amount.
Landfarming - turning the soils up to 3 times.	100%	90% of the approved invoice amount.
Alternative treatments	100%	90% of the approved invoice amount.
Landfill disposal (if applicable)	100%	90% of the approved invoice amount.
Additional pre-approved work	100%	90% of the approved invoice amount.

- 5.1.6 KDHE will review the Excavation and Landfarm Reports within sixty (60) calendar days of receipt and submit written comment to the Vendor; or if approved, the remaining 10% will be released. If KDHE fails to review these Reports and approve them or provide written comment within the sixty (60) calendar day time period, the remaining 10% will be released.
- 5.1.7 Written notification of the Excavation Report approval will include notice of KDHE's decision on the next phase of work to be implemented at the site if applicable.

## **5.2 DOCUMENTATION REQUIREMENTS**

- 5.2.1 Daily time sheet logs for all office and field activities must accompany all Vendor invoices for services provided. Field time sheets must be signed by the Vendor's on-site supervisor. Sample 'daily time sheet logs' are included in ATTACHMENT D and can be used for this purpose.
- 5.2.2 Each line item must be invoiced in the same format (rates and units) as in the Excavation Bid Sheet.
- 5.2.3 If landfill disposal is approved, waste management manifest(s) must be submitted for acceptable reimbursement processing.

## **SECTION 6.0**

## **PROPOSAL AND WORK SPECIFIC DEFINITIONS**

### **6.1 DEFINITIONS**

- 6.1.1 **Backfill** is the clean material used to fill the excavated areas. This item will be bid on a per cubic yard basis and will include the materials, loading, transportation, and off-loading at the project site. Payment will be made for the actual quantities of material used at the rates contained in the bid.
- 6.1.2 **Bid Proposal Sheet - Excavation** is the cost sheet used by the Vendor to calculate and submit a formal bid to KDHE for the excavation scope of work outlined in this RFP.
- 6.1.3 **Compaction** will occur when backfilling with clean fill material. This item will be bid on an per cubic yard basis, and will include all labor and equipment costs to physically compact, or compress, the clean backfill material in the excavated area(s).
- 6.1.4 **Excavation** means the removal of soils from a designated subsurface area which have been impacted by petroleum products. This item will be bid on a per cubic yard basis and will include all mobilization costs. Excavation costs will not include removal of existing tanks, product lines, pumps, awnings, buildings, etc., which may be in place at the site.
- 6.1.5 **Excavation Equipment** is the equipment necessary to remove the contaminated soils from the designated subsurface area.
- 6.1.6 **Excavation Oversight** - Oversight of all excavation activities will be performed by a representative of the Vendor. This person will possess basic knowledge of soil contamination characteristics.
- 6.1.7 **Excavation Report** - This item will include all labor and equipment costs to properly complete and submit the Excavation Report. The Excavation Report requirements and format are included in SECTION 4.5 and 4.6 of this document.
- 6.1.8 **Geotechnical Support** - A geotechnical firm representative, or other person trained in density testing equipment usage, will conduct soil density tests on each 6 inch compacted lift of clean backfill material during the compaction process. Density testing usually occurs in the top 5 (five) feet of the excavated areas, with a self-compacting material below this depth. This item will be bid on a lump sum basis and will include man hours, mobilization and equipment use.
- 6.1.9 **Lab Methods** - This item will include designation of the EPA methods (see ATTACHMENT C of this RFP) to be used for laboratory analysis of soil samples.
- 6.1.10 **Laboratory Name** - This item will include the designation of the KDHE certified lab that will be performing the analyses of soil samples.
- 6.1.11 **Landfarm** - The process of spreading and turning contaminated soils to ultimately reduce contaminant concentrations of specified petroleum constituents through volatilization.
- 6.1.12 **Landfarm Report** - This item will include all labor and equipment costs to properly complete and submit the Landfarm Report. The report requirements and format are outlined in SECTION 4.7 of this RFP.
- 6.1.13 **Landfarm site** - The location of a pre-determined land area to dispose of and treat contaminated soils. Each landfarm site must meet specific criteria prior to approval as a disposal area.

- 6.1.14 **Landfill** - A permitted land area which accepts various types of refuse for disposal or daily cover material, including contaminated soils. This item will include costs per ton for contaminated soil transportation and disposal.
- 6.1.15 **Loading** is the process of placing contaminated soils from the excavated areas to appropriate transport vehicles.
- 6.1.16 **Other** - This item will include all costs not included in specific items of the cost proposal sheet. If this category is used, the bidder must list each item and briefly explain its purpose.
- 6.1.17 **Site Security** - This item will include the costs necessary to prevent the general public from entering the excavation area. This will include appropriate safety materials (fences, barricades, cones, other) needed to avoid injury.
- 6.1.18 **Site Specific Information (SSI) Sheet** (Exhibit 1) contains detailed information about the KDHE Storage Tank site. Any adaptations to this RFP will be contained in the SSI.
- 6.1.19 **Soil Samples** - This item will include all costs associated with the collection and analysis of samples (i.e. labor, equipment, shipping, etc.). All samples shall be analyzed in accordance with the criteria provided in this document for the constituents outlined in EXHIBIT 1. Provide the per sample cost for collection and analysis for each constituent indicated.
- 6.1.20 **Spreading** - After the soils have been taken to the pre-approved landfarm location, the soils will be spread six (6) inches in height above native ground surface, unless otherwise specified in the Site Specific Information Sheet. Soils will be spread within one day of being deposited at the landfarm site.
- 6.1.21 **Transportation** is the process of hauling the contaminated soils to a pre-approved landfarm site or pre-determined legal landfill. If the contaminated soil will be taken to a landfarm, this item will be bid on a per cubic yard basis. If the contaminated soil will be taken to a legal landfill, this item will be bid on a per ton basis, and can be included with disposal costs.
- 6.1.22 **Treatment** - The process of treating contaminated soils and/or water in order to reduce contaminant levels.
- 6.1.23 **Turning** is the process of bringing the undersoil to the surface at the landfarm site, and in this case, to enhance volatilization of petroleum impacted soils. The cost of additional turning will be consistent with the respective rate in the approved bid.
- 6.1.24 **Wastewater** - Water which accumulated in the excavated areas as a result of rain, high groundwater levels, or an unnatural event such as a broken water line, etc.



**ATTACHMENT A**

**FIELD WORK PLAN  
WORKSHEET**

**PETROLEUM STORAGE TANK RELEASE TRUST FUND  
FIELD WORK PLAN WORKSHEET  
EXCAVATION ACTIVITY**

Attachment A  
Page 1 of 2

**Site Name:** \_\_\_\_\_ **KDHE Project Code:** \_\_\_\_\_

**Vendor:** \_\_\_\_\_ **Vendor Contact:** \_\_\_\_\_

Instructions: This form must be completed by providing the information requested below. Do not include any attachments with this worksheet other than those requested herein.

**I. Site Information**

Site Address: \_\_\_\_\_  
(Street) (City) (County)

Legal Description: \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4  
-- -- E / W  
Section -- Township -- Range

**II. Excavation Information**

Check the work to be conducted per the Site Specific Information Sheet:

\_\_\_\_\_ Excavation \_\_\_\_\_ Disposal \_\_\_\_\_ Treatment \_\_\_\_\_ Backfill

List the requested information where applicable:

**A) Excavation Activities**

Excavation Equipment: \_\_\_\_\_  
\_\_\_\_\_

Equipment used for Loading and Transporting contaminated soils (include capacity of truck beds):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**B) Disposal Information**

1.) Disposal of contaminated soils at a landfarm site:

Legal Description of  
the landfarm site \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4  
-- -- E / W  
Section -- Township -- Range

Property owner name & phone number: \_\_\_\_\_

Address, City: \_\_\_\_\_

Other helpful directions: \_\_\_\_\_

Equipment used for berm preparation at the landfarm site: \_\_\_\_\_

Equipment used for spreading and turning contaminated soils at the landfarm site:

Method of turning contaminated soil: \_\_\_\_\_

2.) Disposal of contaminated soils at the Trust Fund site

Equipment used for berm preparation at the site: \_\_\_\_\_

Equipment used for spreading and turning contaminated soils at the site: \_\_\_\_\_

Method of turning contaminated soil: \_\_\_\_\_

3.) Disposal of contaminated soils at a legal landfill

Is disposal of contaminated soils at a landfarm location or at the site an option? Yes No

Is the legal landfill within the county where the contaminated soils originated? Yes No

State the name of the legal landfill, county where it's located, the landfill's contact person and phone number:

Landfill

Contact person

Phone Number

**C) Treatment and Sampling of Contaminated Soils**

1.) Landfarm treatment of contaminated soils

Equipment used for field screening soils: \_\_\_\_\_

Equipment used for collecting grab soil samples for lab analyses: \_\_\_\_\_

KDHE Certified Laboratory: \_\_\_\_\_

Constituents to be analyzed at the lab: \_\_\_\_\_ (circle all that apply)

BTEX    1,2 DCA    Naphthalene    MtBE    EDB    TPH OA-1    TPH OA-2    Total Lead

List method numbers: \_\_\_\_\_

2.) Alternative Treatment Methods:

NOTE: Any method listed below should have been pre-approved by KDHE and the costs included in the Bid Proposal Sheets.

Describe the alternative treatment method: \_\_\_\_\_

**III. BACKFILL INFORMATION**

1.) List the type and expected volume of approved backfill material: \_\_\_\_\_

2.) Backfill specifications include materials, loading, transporting, off-loading and compaction. List equipment used in these processes. \_\_\_\_\_

**IV. SITE MAPS AND PHOTOS**

Note: All maps and photos must include a scale, north arrow and legend

1.) Attach a copy of the USGS 7.5 minute quadrangle map, scale 1:24,000, which depicts the general site location and a one mile radius surrounding the site. The site must be highlighted or outlined.

2.) Attach a copy of the USGS 7.5 minute quadrangle map, scale 1:24,000, which depicts the land farm location, or treatment area.

If the land farm or treatment area is visible and can be highlighted on the general site location map, this second map is not necessary.

3.) Prepare and submit with this worksheet a site map in accordance with and containing the following:

- a) Scale such that 1 inch is less than or equal to 50 feet.
- b) Site property boundaries, buildings or other fixed objects, and street names.
- c) Site map must depict the site with the general use of surrounding properties identified; i.e. residential, industrial, business (indicate what type - fast food, service stations, etc.).
- d) Tanks, lines and pump islands, currently or formerly located at the site.
- e) Outline the proposed area(s) to be excavated.
- f) If contaminated soils are to be treated on-site, outline the area where the soils will be taken for treatment.

4.) Photographs of the site

- a) Two photos of the entire facility taken from two distinctly different directions, including buildings, overhead lines, tank systems and any remedial systems.
- b) Two photos of the tank basin and/or any other area to be excavated.

**V. Field Personnel / Health and Safety Plan Information**

1.) List below the personnel and any subcontracted firms that will be involved in the excavation and treatment activities. Indicate each individual's name and position / title. If resumes documenting education and experience have not been provided with the original bid package for all those listed, submit this information with this worksheet.

Name

Position / Title

Name

Position / Title



2.) Indicate whether a Health and Safety Plan has been prepared for this scope of work:

Yes

No

**ATTACHMENT B**

**OWNER / OPERATOR STANDARD CONTRACT  
AND CONTRACTUAL PROVISIONS**

**AGREEMENT**

This **AGREEMENT** entered into between \_\_\_\_\_  
\_\_\_\_\_(OWNER/OPERATOR) hereinafter referred to as the O/O; and  
\_\_\_\_\_(VENDOR), hereinafter referred to as the Vendor.

**WHEREAS**, the \_\_\_\_\_(O/O) is in need of  
Underground or Above Ground Storage Tank consulting services at  
\_\_\_\_\_ and

**WHEREAS**, the O/O has requested bids from qualified firms to provide said services,  
and

**WHEREAS**, the Vendor is qualified to provide the required services.

It is therefore mutually agreed as follows:

1. The Vendor shall perform all services called for under Request for Proposal (RFP) in accordance with the specifications in said RFP. A copy of said RFP is attached hereto and incorporated herein.
2. The O/O shall compensate the Vendor for its services under the terms and conditions of said RFP in the amount of up to \$\_\_\_\_\_, with payment to be made upon successful completion of the Project.
3. The provisions found in the Contractual Provisions attached hereto and executed by the parties to the **AGREEMENT**, are hereby incorporated in this **AGREEMENT** and made a part hereof.

**IN WITNESS WHEREOF**, we have hereunto set our hands below on the date specified.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Owner/Operator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Vendor

**CONTRACTUAL PROVISIONS**

Important: This form contains mandatory contract provisions and must be attached to or incorporated in all copies of any contractual agreement. If it is attached to the Vendors standard contract form, then that form must be altered to contain the following provisions:

**“The provisions found in the Contractual Provisions, for # O/O 101, 7/92, which is attached hereto and executed by the parties to this agreement, are hereby incorporated in this contract and made a part hereof”**

The parties agree that the following provisions are hereby incorporated into the contract to which it is attached and made a part thereof.

I. **TERMS HEREIN CONTROLLING PROVISIONS**

It is expressly agreed that the terms of each and every provision in this attachment shall prevail and control over the terms of any other conflicting provision in any other document relating to and a part of the contract in which this attachment is incorporated.

I. **AGREEMENT WITH KANSAS LAW**

All contractual agreements shall be subject to, governed by, and construed to according to the laws of the State of Kansas.

I. **ANTI-DISCRIMINATION CLAUSE**

The Vendor should comply with the Kansas Act Against Discrimination (K.S.A. 44-1001 et seq) and the Kansas Age Discrimination in Employment Act (K.S.A. 44-111 et seq) and to not discriminate against any person who performs work hereunder, because of race, religion, color, sex, physical handicap unrelated to such person's ability to engage in this work, national origin or ancestry, or age.

I. **ACCEPTANCE OF CONTRACT**

This contract shall not be considered accepted, approved or otherwise effective until the required bonds and insurance certificates are received by the O/O.

I. **REPRESENTATIVE'S AUTHORITY TO CONTRACT**

By signing this document, the representative of the Vendor hereby represents that he/she is duly authorized by the Vendor to execute this document on behalf of the Vendor and that the Vendor agrees to be bound by the provisions thereof.

I. **RESPONSIBILITY FOR TAXES**

The Owner/Operator will not be responsible for, nor indemnify a Vendor for, any federal, state or local taxes which may be imposed or levied upon the subject matter of this contract.

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Date

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Owner/Operator

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Date

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Vendor

**ATTACHMENT C**

**APPROVED LABORATORY  
METHODS**

## APPROVED ANALYTICAL METHODS FOR ORGANIC COMPOUNDS

ANALYTE	SOLID AND HAZARDOUS WASTE METHODS		WATER METHODS	
	No.	PARAMETER	No.	PARAMETER
<b>Benzene</b>	8020*	Aromatic Volatile Organics	502.2	Volatile Org. Cmp., Purgeable Org. Cmp.
	8021*	Halogenated and Aromatic Volatiles	503.1	Volatile Aromatic & Unsat. Organic Cmp.
	8240	Volatiles	524.1	Purgeable Organic Compounds
	8260	Volatiles	524.2	Purgeable Organic Compounds
			602	Purgeable Aromatics
			624	Purgeables
			1624	Volatile Organic Compounds
<b>BTEX</b>	8020*	Aromatic Volatile Organics	502.2	Volatile Org. Cmp., Purgeable Org. Cmp.
	8021*	Halogenated and Aromatic Volatiles	503.1	Volatile Aromatic & Unsat. Organic Cmp.
	8240	Volatiles	524.1	Purgeable Organic Compounds
	8260	Volatiles	524	Purgeable Organic Compounds
<b>1,2-DCA</b>	8010*	Halogenated Volatile Organics	502.1	Volatile Halogenated Organic Compounds
	8021*	Halogenated and Aromatic Volatiles	502.2	Volatile Org. Cmp., Purgeable Org. Cmp.
	8240	Volatiles	524.1	Purgeable Organic Compounds
	8260	Volatiles	524.2	Purgeable Organic Compounds
			601	Halogenated Volatile Organics
			624	Purgeables
			1624	Volatile Organic Compounds
<b>Ethylbenzene</b>	8020*	Aromatic Volatile Organics	502.2	Volatile Org. Cmp., Purgeable Org. Cmp.
	8021*	Halogenated and Aromatic Volatiles	503.1	Volatile Aromatic & Unsat. Organic Cmp.
	8240	Volatiles	524.1	Purgeable Organic Compounds
	8260	Volatiles	524.2	Purgeable Organic Compounds
			602	Purgeable Aromatics
			624	Purgeables
			1624	Volatile Organic Compounds
<b>MtBE</b>	8020*	Aromatic Volatile Organics	503.1	Volatile Aromatic & Unsat. Organic Cmp.
	8240*	Halogenated and Aromatic Volatiles		
	8260	Volatiles		
<b>Naphthalene</b>	8021*	Halogenated and Aromatic Volatiles	502.2	Volatile Org. Cmp., Purgeable Org. Cmp.
	8100	Polynuclear Aromatic Hydrocarbons	503.1	Volatile Aromatic & Unsat. Organic Cmp.
	8250	Semivolatile Organic Compounds	524.2	Purgeable Organic Compounds
	8270	Semivolatile Organic Compounds	550	Polycyclic Aromatic Hydrocarbons
	8310	Polynuclear Aromatic Hydrocarbons	550.1	Polycyclic Aromatic Hydrocarbons
	8260	Volatiles	610	Polynuclear Aromatic Hydrocarbons
			625	Base/Neutrals & Acids
			1625	Semivolatile Organic Compounds
<b>Toluene</b>	8020*	Aromatic Volatile Organics	502.2	Volatile Org. Cmp., Purgeable Org. Cmp.
	8021*	Halogenated and Aromatic Volatiles	503.1	Volatile Aromatic & Unsat. Organic Cmp.
	8240	Volatiles	524.1	Purgeable Organic Compounds
	8260	Volatiles	524.2	Purgeable Organic Compounds
			602	Purgeable Aromatics
			624	Purgeables
			1624	Volatile Organic Compounds

\* Water samples must be prepared using method 5030 (purge & trap extraction) if this test method is used.



## APPROVED ANALYTICAL METHODS FOR ORGANIC COMPOUNDS

ANALYTE	SOLID AND HAZARDOUS WASTE METHODS		WATER METHODS	
	No.	PARAMETER	No.	PARAMETER
<b>Xylene</b>	8020*	Aromatic Volatile Organics	502.2	Volatile Org. Cmp., Purgeable Org. Cmp.
	8021*	Halogenated and Aromatic Volatiles	503.1	Volatile Aromatic & Unsat. Organic Cmp.
	8240	Volatiles	524.1	Purgeable Organic Compounds
	8260	Volatiles	524.2	Purgeable Organic Compounds
<b>EDB</b>	8260	Volatiles	504	DW by Microextraction
			504.1	123TCP by Microextraction & GC
<b>Polynuclear Aromatic Hydrocarbons</b>	8310	Polynuclear Aromatic Hydrocarbons	610	Polynuclear Aromatic Hydrocarbons (High performance Liquid Chromatography)
	8270C	Semi Organic Compounds by GC/MS, Cap Column		
<b>Lead</b>	7420	AA Direct Aspiration	239.2	Atomic Absorption Spectrometry (Graphite Furnace)
	7421	Atomic Absorption, Furnace Technique	200.8	Inductively Coupled Plasma Mass Spectrometry
			200.9	Atomic Absorption Spectrometry-Stabalized Temperature (Graphite Furnace) Method

**Air Sample Analysis:**

40 CFR Ch. 1 (7-1-91 Edition) Part 60, Appendix A, Method 18 (Flexible Bag Procedure)

rev 6, 07/04

**ATTACHMENT D**

**DAILY TIME SHEET LOG**

**KDHE STORAGE TANK TRUST FUND TIME SHEET LOG  
FOR STAFF ACTIVITIES**

ATTACHMENT D

**SITE NAME:** \_\_\_\_\_  
**SITE ADDRESS:** \_\_\_\_\_  
**KDHE PROJECT CODE:** \_\_\_\_\_  
**CONSULTANT:** \_\_\_\_\_  
**PROJECT MANAGER:** \_\_\_\_\_

**NOTE:** This form is to be maintained during all site activities. All workers must sign, date and list the time they work on the site project. A separate form must be maintained for each site project.

**A COPY OF THIS FORM MUST ACCOMPANY ALL REQUESTS FOR REIMBURSEMENT.**

DATE	PRINT WORKER'S NAME	WORKER'S SIGNATURE	JOB TITLE	TIME STARTED	TIME FINISHED	TOTAL TIME FOR DAY

I certify that the names and signatures above are those of the actual people who worked on the referenced site during dates and times stated.

Signed: \_\_\_\_\_  
                    Consultant Project Manager

Date: \_\_\_\_\_

**ATTACHMENT E**

**BUREAU OF WASTE MANAGEMENT  
INFORMATION**

**Kansas Statutes Annotated 65-3407c.**

(a) The secretary may authorize persons to carry out the following activities without a solid waste permit pursuant to K.S.A. 65-3407c, and amendments thereto:

- (1) Dispose of solid waste at a site where the waste has been accumulated or illegally dumped. Disposal of some or all such waste must be identified as an integral part of a site clean-up and closure plan submitted to the department by the person responsible for the site. No additional waste may be brought to the site following the department's approval of the site clean-up plan.
- (2) Perform temporary projects to remediate soils contaminated by organic constituents capable of being reduced in concentration by biodegradation processes or volatilization, or both. Soil to be treated may be generated on-site or off-site. A project operating plan and a site closure plan must be submitted to the department as part of the project approval process.

(b) The secretary shall consider the following factors when determining eligibility for an exemption to the solid waste permitting requirements under this section:

- (1) Potential impacts to human health and the environment.
- (2) Urgency to perform necessary work compared to typical permitting time frames.
- (3) Costs and impacts of alternative waste handling methods.
- (4) Local land use restrictions.
- (5) Financial resources of responsible party.
- (6) Technical feasibility of proposed project.
- (7) Technical capabilities of person performing proposed work.

(c) The secretary may seek counsel from the local government officials prior to exempting activities from solid waste permitting requirements under this section.



K A N S A S

RODERICK L. BREMBY, SECRETARY

DEPARTMENT OF HEALTH AND ENVIRONMENT

KATHLEEN SEBELIUS, GOVERNOR

Application to Landfarm Petroleum Contaminated Soils  
Without a Permit Authorized by K.S.A. 65-3407c(a)(2)

**SECTION 1. FACILITY INFORMATION** (Site where contaminated soil was generated)

Facility Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

County \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Mailing Address (if different than above) \_\_\_\_\_

Contact Name \_\_\_\_\_ Phone \_\_\_\_\_

Legal Location of Soil Source \_\_\_\_\_  
1/4 Section Township Range County

Coordinate Location in degrees decimal: Latitude \_\_\_\_\_, Longitude \_\_\_\_\_

**SECTION 2. APPLICANT INFORMATION** (Owner/Operator, General or Sub-Contractor performing the work)

Individual or Company Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

County \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Contact Name \_\_\_\_\_ Phone \_\_\_\_\_

Applicant Type (check all that apply) \_\_\_\_ Soil Generator \_\_\_\_ Consultant \_\_\_\_ Soil Treatment Provider

Will you be performing the actual treatment? \_\_\_\_ Yes \_\_\_\_ No, If no who will be providing the actual treatment.

Individual or Company Name \_\_\_\_\_

Contact Name \_\_\_\_\_ Phone \_\_\_\_\_

BER Contact \_\_\_\_\_ Project Number \_\_\_\_\_

The property owner of the proposed landfarm location must read and sign page 5 of this application titled *Landfarm Property Owner Consent Form*, if applicable. The signed form must be submitted to the Bureau of Waste Management before any landfarming project will be approved.

Property Owner's Name\_\_\_\_\_

Mailing address \_\_\_\_\_ City \_\_\_\_\_

County \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Legal location of the landfarm site \_\_\_\_\_  
County                      1/4                      Section                      Township                      Range

Coordinate Location in degrees decimal: Latitude \_\_\_\_\_, Longitude \_\_\_\_\_

Current land use of the proposed treatment site (check all that apply)

Agriculture \_\_\_\_\_ Commercial \_\_\_\_\_ Industrial \_\_\_\_\_ Residential \_\_\_\_\_ Other \_\_\_\_\_

Current land use of surrounding area (check all that apply)

Agriculture      Commercial      Industrial      Residential      Other

Are there any land use restrictions, zoning requirements, or local permits required? Yes \_\_\_\_\_  
No \_\_\_\_\_

If yes, please describe and attach copies of any documentation. \_\_\_\_\_

Distance and direction to the nearest residence and/or business. \_\_\_\_\_

Are there any water wells located within a 1/2 mile radius of the proposed treatment site? Yes\_\_\_ No\_\_\_

If yes, please indicate their location on the required site location map.

What is the depth to groundwater? \_\_\_\_\_ Direction of groundwater flow (if known) \_\_\_\_\_

**SECTION 4. CONTAMINATED SOIL INFORMATION**

How many cubic yards of contaminated soil do you propose to remediate? \_\_\_\_\_

Type of contaminated soil (sand, silt, clay, silty clay, etc.) \_\_\_\_\_

What type of contaminant is the soil impacted with (check all that apply)

Gasoline \_\_\_\_\_ Diesel Fuel \_\_\_\_\_ Waste/Used Oil \_\_\_\_\_ Solvents \_\_\_\_\_ Other (specify) \_\_\_\_\_

In addition to the above information, contaminated soil must be analyzed by a Kansas certified lab prior to transportation of the soil to the proposed landfarm location. In general all soils contaminated with petroleum products should be analyzed for BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes), 1,2-Dichloroethane and total lead. Soils contaminated with gasoline and or diesel fuel should also be analyzed for TPH by the OA-1 and OA-2 test methods respectively. Other types of contamination such as waste/used oil, crude oil, and solvent contamination may require additional testing. Questions regarding which test are required should be addressed to KDHE Bureau of Waste Management.

**SECTION 5. LANDFARM OPERATING PLAN**

The landfarm operating plan is a separate document you will attach to this application that demonstrate the applicants understanding and ability to manage the landfarming activities. At a minimum all plans should contain the following information. Please note that all landfarms which occur off-site from the contamination site will have target clean up levels of non-detect or a level equal to natural background levels, and will not be based on the KDHE RSK-MANUAL for TPH (GRO) or (DRO). The KDHE Bureau of Waste Management should be contacted prior to determination of background levels. Also, landfarming without a permit will only be authorized for temporary projects, which means all remediation plans should be designed to reduce contamination levels to the target level within two years.

1. **Background:** Describe how the contaminated soil was generated (Spill, Leaking UST, Pipeline break etc...) and explain any current KDHE involvement with the project, giving the names of KDHE representatives already involved.
2. **Site Map:** The site map should show the landfarms orientation and location with respect to nearby residential housing, commercial buildings, waters of the state, and domestic water wells within ½ mile of the site. This map should also be detailed enough that it could be used to locate the landfarm or contain additional directions to the site from the nearest highway. As a general guide landfarms should not be located within: 500 feet of a residence, business, domestic or public water supply; 200 feet from waters of the state and property lines; and 100 feet from a drainage swale, ditch, or other physical feature which channels overland flow.
3. **Site Preparation:** Describe the initial condition and use of the landfarm site and how the landfarm will be constructed; including details about grading, run-off/run-on control measures, and the depth at which contaminated soils will be placed etc.



4. **Treatment and Management Procedures:** The treatment and management procedures should describe how and when the contaminated soils will be remediated. It should also detail the management objectives, method of evaluating those objectives, frequency of evaluation, and the actions to be taken to achieve the stated objectives. Management objectives typically include maintaining the optimum moisture content, pH, nutrient level, and oxygen level to promote microbial growth and subsequent degradation of the contaminant.

For soils impacted with gasoline only, turning the soil to aerate and volatilize the gasoline is a proven acceptable treatment method for attaining the non-detect remedial goal. Typically diesel fuel and other heavier hydrocarbons can not attain the target cleanup level by aeration alone. These landfarms require treatment and management procedures that attempt to optimize and enhance the growing environment of the biodegrading bacteria. In addition to providing oxygen by turning the soil, managing the landfarm to optimize moisture content, pH, and nutrient levels greatly increases the rate and extent of biodegradation, and should be incorporated into most landfarming projects other than those involving gasoline only.

It's important to remember that landfarming without a permit is considered a temporary biodegradation process which employs methods meant to accelerate the natural degradation of the contaminants.

5. **Monitoring Plan:** How will you monitor the progress of the biodegradation process. In general the information you provide should include: frequency of sampling, method of sampling, number of samples, sample locations, parameters to be analyzed for, and analytical methods used.

## SECTION 6. LANDFARM CLOSURE PLAN

The landfarm closure plan is a separate document you will attach to this application. At a minimum it should contain the following information.

1. **Closure Activities:** Detail what will be done to close the site and return it to its original condition, such as regrading, seeding, or removal of the soil. Describe the proposed use of the land/soil once contamination has been reduced to acceptable levels. Explain the over all steps that will be taken to close the site.

Also, as part of the closure activities the KDHE Bureau of Waste Management must be notified at least 10 days prior to confirmation sampling so that a KDHE representative may be present to monitor the sampling and take split samples if so desired.

2. **Confirmation Sampling:** Describe how closure confirmation samples will be taken include: method of sampling, number of samples, sample locations, parameters to be analyzed for, and analytical methods to be used. Confirmation sampling should be representative of the entire landfarm and should, at a minimum, be sampled at a rate of 1 sample per 300 cubic yards of soil. All soil samples to be tested for volatile contaminants should be taken as discrete grab samples. Samples to be tested for semi volatile and non-volatile contaminants may be composite samples.

**Landfarm Property Owner Consent Form**  
(To be developed)

## SECTION 7. CHECK LIST

**Please make sure the following items are complete and attached before submitting this application.**

- 9 Site Map
- 9 Analytical results from a Kansas certified lab
- 9 Landfarm Operating Plan
- 9 Landfarm Closure Plan
- 9 Landfarm Property Owner Consent Form (if applicable)

## Section 5 Landfarm Operating Plan

- 1) **Background:** The \_\_\_\_\_ site has been approved for remedial action and financial assistance through the Petroleum Storage Tank Release Trust Fund. Contaminated soils were discovered on \_\_\_\_\_ (date) during the \_\_\_\_\_ {removal of tanks, monthly inspection, line leak} per District Office Representative \_\_\_\_\_ of the \_\_\_\_\_ District Office.
- 2) **Site Map** of the Landfarm: See attached
- 3) **Site Preparation:** The landfarm property is owned by \_\_\_\_\_ and has been in \_\_\_\_\_ (agricultural, commercial, industrial) use for \_\_\_\_\_ years. The landfarm is surrounded by \_\_\_\_\_ property, with no receptors within 500'. The Vendor/Contractor will create a berm at least 18 inches above ground surface from clean native soils to prevent precipitation run-on and run-off. The Vendor/Contractor will spread the contaminated soils 6 inches above ground surface within the bermed area.
- 4) **Treatment and Management Procedures:** The Vendor/Contractor will conduct three turning events (about one per month, weather permitting) of the contaminated soil in order to accelerate natural aerobic degradation of the petroleum constituents. The Vendor / Contractor will notify the KDHE Project Manager before each turning event. KDHE will field screen the landfarmed soils approximately 25 days after the last turning event.
- 5) **Monitoring Plan:** The landfarm will be visited and berms will be checked by a KDHE representative during or after each turning event. When a field screening event indicates the contaminants of concern have decreased to acceptable levels, confirmation soil lab samples will be collected for analysis by a KDHE representative. The soils will be analyzed for TPH OA-1, TPH OA-2, BTEX, 1,2 DCA, MtBE, Naphthalene, and EDB. This analysis will be compared to lab analysis of soils collected during excavation activities.

## Section 6 Landfarm Closure Plan

- 1) **Closure Activities:** Confirmation soil samples will be collected from the landfarm site as described in the next item. Upon attaining closure approval, the berms surrounding the landfarm will be destroyed. Remediated soils within the bermed area will be used by the contractor as fill dirt for agricultural or commercial use.
- 2) **Confirmation Sampling:** The number of confirmation samples will depend on the quantity of soil that was treated. KDHE is anticipating removal of \_\_\_\_\_ cubic yards of contaminated soil from the project site. A grab sample will be collected per 1000 sq. foot area of treated soil from areas that exhibited levels of contamination, plus additional samples where needed. The soils will be analyzed for TPH OA-1, TPH OA-2, BTEX, 1,2 DCA, MtBE, Naphthalene and EDB.

**EXHIBIT 1**

**SITE SPECIFIC INFORMATION  
SHEET**

**EXHIBIT 2**

**BID PROPOSAL SHEETS**